

is possible that it has never had any; though, judging from its close relations and the numerous intermediate forms, it is more likely that it once had them, but has now hopelessly lost them—as hopelessly as the snake has lost its legs. However this may be, the flowers of the sedge are now arranged in a thoroughly business-like manner for wind fertilization. Each stalk bears three or four little branching spikelets, the top spikelets consisting altogether of yellow stamens, covered in groups of three by single russet-black scales, while the lower spikelets consist altogether of pistils, with two or three white feathery plumes hanging out to catch the pollen, and similarly covered by dark sheathing bracts. The whole head thus looks like a group of miniature catkins, the upper catkins bright yellow and the under ones delicately frosted with fluffy white. The use of this arrangement is obvious. When the wind shakes the heads so that they bend and jostle against one another, the tallest spikelet on each stalk naturally strikes against the lower spikelets of its neighbors. Thus each plant fertilizes the next in order; and even if the heads do not happen to touch, yet the pollen blown from the one falls forward upon the other, so producing exactly the same result. Indeed, cross-fertilization is brought about in different plants by a hundred such devices; and to observe the various mechanisms by which it is furthered, forms a fresh and almost endless pleasure for every country walk.

III.

RED CAMPION AND WHITE.

THE bank along the footpath that leads from the village to Culverhole Cliffs is just at present all aglow with a varied wealth of flowers and insect life. The yellow cabbage-butterflies are flitting over the blue masses of wild hyacinths; the ladybirds are busy among the wee green aphides on the budding sprays of honeysuckle;

and the bronze-mailed beetles are hunting for smaller insects beside the matted stems and roots of the big white stitchworts. The gorse has burst into its wonted blaze of blossom, so bright that one can hardly wonder at Linnaeus, who fell upon his knees and thanked God with fervor when first he looked upon its golden glory. Up to this morning I have counted seventy-eight kinds of wild flowers in blossom, not including catkins or grasses. And now to-day, for the first time this season, I see the pretty pink clusters of the red campion adding their warmer tint to the blues and yellows and greens of the tangled bank beside me. Already the butterflies have found out that its big swollen buds have opened and made clear the way to the nectaries; and I can notice a great bustling hairy bumble bee blundering about the mouth of one flower on the stalk, while half a dozen little flies are gathered around the sticky calyx of another. Evidently the red campion is very successful in its efforts to attract the eyes of insects. I saw it distinctly a hundred yards away, and the butterflies seem to see it quite as well, and a great deal more effectually.

The campions, indeed, are flowers in which specialization and adaptation have in many respects been carried to an extremely high pitch. True, they cannot compare in complexity with the orchids or the dead-nettles, nor even with the little daisies and dandelions around them. Yet in their own way they have found themselves a place in nature which they are well fitted not only to fill but also to adorn. There are two common kinds in England, known to botanists as the day and night lychnis respectively, but to village children as red and white campion. The correspondence of these two names is full of significance. The day lychnis has a bright pink blossom, quite scentless, and opening in the morning. It is specialized for fertilization by bees and butterflies (more particularly the

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